

PAN-EUROPEAN NETWORK FOR NEUROSCIENCE RESEARCH INFRASTRUCTURE AND STRENGTHENING OF SUPPORT CAPACITIES (PANERIS)

PANERIS Winter School

Addiction: underlying mechanisms and search for novel therapies

at the Maj Institute of Pharmacology Polish Academy of Sciences

3rd – 7th March 2025 Krakow, Poland







12 Smętna Street 31-343 Krakow, Poland e-mail: ifpan@if-pan.krakow.pl phone: +48 12 662 32 20 http://if-pan.krakow.pl/











Welcome to the IP PAS









The Maj Institute of Pharmacology of the Polish Academy of Sciences (IP PAS) in Krakow is a research institute specialized in pharmacology, drug discovery, and related fields within the domain of life sciences. The Institute is focused on advancing scientific knowledge, promoting innovation, and contributing to the development of pharmaceutical and medical sciences. IP PAS has extensive research infrastructure supporting all areas of investigation in neuropsychopharmacology, from medicinal chemistry to high-throughput in vitro and in vivo preclinical testing, including comprehensive experience in analysis of cellular and molecular mechanisms of drug action. The Institute's research priorities include studies on the etiology and treatment of depression, anxiety, schizophrenia, chronic pain, neurodegerative disorders and addiction as well as basic investigation in the field of neuroscience.

In 2024, the Institute has established the Center for Development of New Pharmacotherapies of Central Nervous System Disorders (**CEPHARES**), which expands capacity for advanced high-throughput **preclinical testing of novel candidate drugs and therapies**. Consisting of 5 laboratory modules Center was created as a result of project co-financing under the European Regional Development Fund within the framework of Task 4.2 of Smart Growth Operational Program 2014-2020 (POIR.04.02.00-00-D007/20-00).

The **PANERIS** Project is funded through HORIZON Europe call HORIZON-WIDERA-2023- ACCESS-04-01 - Pathways to Synergies, as a HORIZON Coordination and Support Action under the title "Pan-European Network for Neuroscience Research Infrastructure and Strengthening of Support capacities" (project no 101160180). The project's duration is 24 months, with a start date of 1st May 2024 and an expected end date of 30 April 2026. IP PAS is one of the four PANERIS consortium members. PANERIS project encompasses a variety of training opportunities such as online courses, site visits, or Winter/Summer Schools. PANERIS schools gather top-notch experts in different scientific fields, together with a series of soft skills sessions designed to provide a broad perspective on key topics, promoting altogether the development of multidisciplinary knowledge and skills among participants.

Winter School Framework Program

	Day 1	Day 2	Day 3	Day 4	Day 5
Morning		Lecture 3	Lecture 5	Lecture 7	Lecture 8
9.00 – 12.30		Lecture 4	Lecture 6		
		Coffee break	Coffee break	Coffee break	Coffee break
		Practical part	Practical part	Practical part	Lecture 9
Lunchtime 12.30 – 14.00	Registration & Lunch	Lunch	Lunch	Lunch	Summary & Closing
					Lunch &
Afternoon 14.00 – 18.00	Opening & Foreword	Practical part	Practical part	Participant presentations	Sightseeing tour - Old Town of Krakow
	Lecture 1				
	Coffee break	Coffee break	Coffee break	Coffee break	
	Lecture 2	Practical part	Practical part	Participant presentations	
	17:00 - Welcome gathering & snacks			19:00 Dinner	

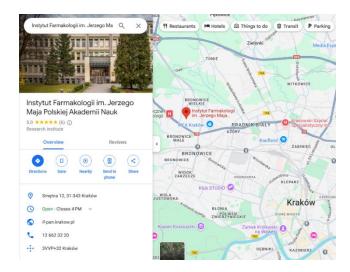
Location & Additional Information

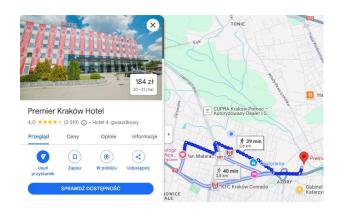
Meeting address:

Maj Institute of Pharmacology Polish Academy of Sciences 12 Smętna Street PL 31-343 Kraków, Poland

Hotel address:

Premier Kraków Hotel 14a, Opolska Street, PL 31-323 Kraków, Poland www.premierkrakowhotel.pl





The **PANERIS Winter School**, organized by IP PAS in Krakow, offers a unique opportunity to explore the latest advancements in **addiction research**. The program features seven scientific lectures (also available online) delivered by distinguished experts from leading European institutions specializing in the field. These lectures will provide insights into the current state of research and the challenges facing science today, including discussions on the ethics of animal research.

The theoretical component will be complemented by three hands-on workshops:

- ✓ High-resolution imaging of stress-induced synapsis plasticity. An introduction to confocal microscopy.
- ✓ Application of mass spectrometry in proteomics. Data-independent Acquisition 4D Proteomics the knowledge beyond protein identification.
- ✓ **Basis of rodent behavioral research.** An introduction to rodent behavioral studies' design, conduct and interpretation.

In addition, participants will take part in theoretical and practical sessions aimed at enhancing soft skills, with a focus on **open science** and the **application of artificial intelligence in grant writing**.

Winter School Program

Day 1. - 3rd March 2025

12:30 - 14.00	Registration & Lunch		
14:00-14:15	PANERIS Winter School Opening	Prof. Małgorzata Filip, Ph.D.– IP PAS Director	
	What is the PANERIS Project?	Prof. Jan Rodriguez Parkitna, Ph.D. – IP PAS Deputy Director for Research & Co—chair	
14:15-15:15	Lecture 1: Neurobiology of drug instrumentalization and transition to addiction Q&A Session	Keynote speaker Prof. Christian P. Müller, Ph.D University Clinic Friedrich-Alexander-University of Erlangen-Nuremberg, Germany	
15:15 - 15:45	Coffee break		
15:45-16:45	Lecture 2 : Decoding Addiction: Lessons from Animal Models Q&A Session	Małgorzata Frankowska, Ph.D. – Department of Drug Addiction Pharmacology, IP PAS, Poland	
17.00 – 19.00	Welcome gathering & snacks		

Day 2. - 4th March 2025

08:45-09:45	Lecture 3: Clinical aspects of addictions and their impact on translational research Q&A Session	Hugo López, Ph.D. – IDIBAPS, Spain
09:45-10:45	Lecture 4: The pharmacotherapy of drug addiction – past, present, and future Q&A Session	Prof. Christian P. Müller, Ph.D University Clinic Friedrich-Alexander-University of Erlangen-Nuremberg, Germany
10:45 - 11:15	Coffee break	
11:15-12:45	Practical part	
12:45 - 14.00	Lunch	
14:00-15:30	Practical part	
15:30 - 16:00	Coffee break	
16:00-17:30	Practical part	

Day 3. - 5th March 2025

09:00-9:45	Lecture 5: A retrospective on the search for mechanisms of addiction Q&A Session	Prof. Jan Rodriguez Parkitna, Ph.D. – IP PAS, Poland
09:45-10:30	Lecture 6: Neuroanatomy and neurochemistry of psychoactive substances Q&A Session	Prof. Valentina Vengelienė, Ph.D. – Institute of Biosciences, Life Sciences Center, Vilnius University, Lithuania
10:00 - 10:30	Coffee break	
10:30-12:00	Practical part	
12:00 - 13.30	Lur	nch
13:30-15:00	Practical part	
15:00 - 15:30	Coffee break	
15:30-17:00	Practical part	

Day 4. - 6th March 2024

09:00-10:30	Lecture 7 : Challenges in animal research Q&A Session	Prof. Ana Sebastião, Ph.D. – FMUL, Portugal
10:30 - 11:00	Coffee break	
11:00-12:30	Practical part	
12:30 - 14.00	Lunch	
14:00-15:30	Participant presentations - "miniprojects" from the workshop	
15:30 - 16:00	Coffee break	
16:00-18:00	Participant presentations - "miniprojects" from the workshop	
19.00 – 21.00	Dinner	

Day 5. – 7th March 2024

09:00-10:45	Lecture 8: Open Science in Research: From Theory to Practice Theory + Practical Part	Paula Samsó, Ph.D IDIBAPS, Spain Carla Fantini, Ph.D IDIBAPS, Spain	
10:45 - 11:15	Coffee break		
11:15-12:45	Lecture 9: Artificial Intelligence tools for grant writing Theory + Practical Part	Juan Abolafia, Ph.D IDIBAPS, Spain Lidia Castro, Ph.D IDIBAPS, Spain	
12:45-13:00	PANERIS Winter School Summary & Closing	Prof. Jan Rodriguez Parkitna, Ph.D. – IP PAS	
13:00 - 16:30	Lunch & Krakow Old Town Sightseeing		

Welcome to Krakow





About Krakow

Krakow is one of the **most beautiful and popular** cities in Poland, known for its rich history, culture, and academic importance. Listed as a UNESCO World Heritage Site, it offers a perfect blend of historical charm and modern conveniences, making it a favorite destination for tourists. Due to its demographic, economic, and scientific strength it ranks second in Poland among cities. It has unique values that are the basis of its development and an increase in the quality of life.

The city is filled with historical landmarks and offers excellent facilities like hotels, restaurants, and leisure areas for visitors to enjoy. Some of the most famous attractions in Krakow include Wawel Castle, the Main Market Square, and the Barbican. The **Main Market Square**, the largest in Europe, features important historic sites such as the **Sukiennice (Cloth Hall)** and **St. Mary's Basilica**. **The Royal Road**, a historic route, runs through the square, leading from the **Barbican** to **Wawel Castle**, which was once the residence of Polish kings when Krakow served as the country's capital.

Not far from the Old Town is **Kazimierz**, the historic Jewish district, which has become a vibrant and popular destination for visitors. Kazimierz is full of cultural energy all year long, attracting tourists with its unique architecture, fascinating history, lively klezmer music, and delicious cuisine. The district is home to seven preserved synagogues. Local cafes and restaurants invite visitors to try traditional Jewish and Polish dishes.

Krakow is also a major academic and research center. The city has 24 universities, including the famous **Jagiellonian University**, founded in 1364 what makes it the oldest in Poland and one of the oldest in Central Europe. It is also home to many scientific and research institutions, including 12 Institutes of the **Polish Academy of Sciences** (PAS).

With its mix of history, culture, and education, Krakow is a city that offers something special for everyone. It aspires to be an open, rich, friendly and safe metropolis.

